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10/717,707	11/21/2003	Noriko Minamino	05225.0253	8855

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EXAMINER

CHANNAVAJALA, SRIRAMA T

ART UNIT PAPER NUMBER

2166

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/717,707	<b>Applicant(s)</b> MINAMINO ET AL.	
	<b>Examiner</b> Srirama Channavajjala	<b>Art Unit</b> 2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 10/717,707.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/1204 ; 11/2104</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-22 are presented for examination.

***Priority***

2. Acknowledgment is made of applicant's claim for foreign priority based on Application SI.No 2002-340041 filed on 22 November 2002 under 35 U.S.C. 119(a)-(d), the certified copy has been filed in the Application No. 10/717707, filed on 11/21//2003.

***Information Disclosure Statement***

3. The information disclosure statement filed on 08/12/2004 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy is enclosed with this Office Action.
4. The information disclosure statement filed on 11/21/2003 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy is enclosed with this Office Action, examiner noted that applicant's however, "Portal corporation: URL <http://www.portalcorp.net> and <E-INGBIZ.COM [URL:http://www.e-inobiz.com/catalog2/server/servlet/catalogsearch?lang-ja](http://www.e-inobiz.com/catalog2/server/servlet/catalogsearch?lang-ja)>> are not considered because there is no publication date provided both in IDS as well as specification page 4-5, applicant is required to provide publication date in response to this office action.

**Claim Rejections - 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**5. Claims 1-22 are rejected under 35 U.S.C. 101 because invention is directed to non-statutory subject matter.**

*As set forth in MPEP 2106(II)A:*

*Identify and understand Any Practical Application Asserted for the Invention The claimed invention as a whole must accomplish a practical application. That is, it must produce a “useful, concrete and tangible result.” State Street, 149 F.3d at 1373, 47USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of “real world” value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.*

*Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does*

**not make the invention eligible for patenting.** For example, a claim directed to a word processing **file stored on a disk may satisfy the utility** requirement of 35 U.S.C. 101 since the information stored may have some **“real world”** value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 **does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a “useful, concrete and tangible” result to have a practical application.**

Regarding claim 1,21-22, “an apparatus for displaying a hierarchical structure, comprising: a memory configured to store a database for a plurality of classes having a hierarchical structure: and a display configured to output at least part of a 'first area of one class and at least part of a second area of at least one child class belonging to the one class, the one class and the at least one child class being defined in the plurality of classes, and the first area including the second area” is directed to “abstract idea” and non-functional descriptive material because all of the elements in the claim 1 would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that apparatus for displaying a hierarchical structure having memory configured to store a database for a classes having a hierarchical structure [data structure] steps is software, per se , is “non-statutory subject matter” and **claim 1** do not have “practical application” because the “final result” by the claimed invention in the claim 1 elements particularly “a display configured to output at least part of a first area of one class.....first area including the second area” merely code or instructions or a data structure.

Functional descriptive material consists of data structures and computer programs, which impart functionality when employed as a computer component. A data structure is defined by the New IEEE Standard Dictionary of Electrical and Electronics Terms 308 [5<sup>th</sup> ed. 1993] as follows: “ **a physical or logical relationship among data elements, designed to support specific data manipulation functions**” [the IEEE definition of which can be found in the Interim Guidelines, Annex IV, page 50, and the in MPEP 2106], or merely non-functional descriptive material for example data or non-functional arrangement of data structure [claim 1] but not producing “**useful, tangible and concrete**” result. although apparatus for displaying.....[claim 1] tied to a hardware, or a machine to be a physical object, all elements would have been reasonably interpreted in light of the disclosure by one of the ordinary skill as software alone, therefore ,claim 1 is a non-statutory subject matter. The claimed invention is subject to the test of State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Specifically State Street sets forth that the claimed invention must produce a “**useful, concrete and tangible result.**” The Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility states in section IV C. 2 b. (2) (on page 21 in the PDF format):

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72,

175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”).

Claim 1, have the result of producing “***real-world***” results related to “a display configured to output at least part of a first area of one class.....first area including the second area” merely code or instructions or a data structure”, however the claims do not specify that the result (data structure ie., parent-child relation) neither defined parent-child relation nor relationship between child class and the class in a data structure but merely displaying outputted to a user or otherwise used in the real world, furthermore, no *use of* “a display configured to output at least part of a first area of one class.....first area including the second area” is set forth that would constitute a real-world result. Thus the claimed result is not tangible and thus the claimed result is not a “**useful, concrete and tangible result.**” The court in State Street noted that the claimed invention in Alappat constituted a practical application of an abstract idea because it produced a *useful, concrete and tangible result* the display of a smoothed heart beat to a system user. The Federal Circuit further ruled that it is of little relevance whether a claim is directed to a machine or process for the purpose of a § 101 analysis. AT&T; 172 F.3d at 1358, 50 USPQ2d at 1451 (see the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Annex II).

The examiner reviewed the specification [page 13-16,18-20,23-28], but was unable to find a practical real-world use of the result. If the applicant is able to find one

and inserts it into the claims provide the location the element[s] is found in the specification.

In view of above analysis of claims 2-20 depend from claim 1 is also rejected.

6. Claim 22 is rejected in accordance with *“Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility”*, published on 10/26/2005, computer readable code or instructions as claimed in claim 22 *“does not fall”* within one of the *four statutory classes* of 35 U.S.C § 101, [see page 55-57, “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility”] and thus ineligible for patent protection.

**REMARKS:**

In the preamble add “computer readable program code stored on a computer readable medium.....

In the claim 22, examiner recommends to add *“instructions for* identifying....  
*instructions for* a first program code.....  
*instructions for* a second program code to .....

***For “General Analysis for Determining Patent-Eligible Subject Matter”, see 101 Interim Guidelines as indicated below:***

[<<http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>>](http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html)

No new matter should be entered.



***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**8. Claims 1-22 of the instant application are considered obvious over claims 1-20 of US Application No. 10/717,561 (US Publication No. 2004/0162838); claims 1-18 of US Application No. 11/086,229 (US Publication No. 2005/0234978); 10/900,388 (US Publication No. 2005/0027724)**

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed.Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). "ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

The subject matter claimed in the instant application is fully disclosed in the referenced co-pending application and would be covered by any patent granted on that co-pending application since the referenced copending application and the instant application are claiming common subject matter. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons: Claim 1,21,22 of the instant application substantially recites the limitations of claim 1,18 of the cited co-pending application 11/086,229 (US Publication No.

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2005/0234978); claims 1,16-20 of co-pending application: 10/900,388 (US Publication No. 2005/0027724); claims 1, 11 of co-pending US Application No.10/717,561

(US Publication No. 2004/0162838), the claims merely either omits or adds limitations;

US Application No. 11/086,229 is directed to *"A hierarchical database, in which a sub-clas inherits to a property of a super class, having a class code for each class to identify the class, comprising: a first classification system....a second classification system...the synonymous class has an identification information....[claim 1,18];*

US Application No. 10/900,388 is directed to *"An apparatus for processing data, comprising: a database configured to hierarchically store a plurality of classes and plurality of contents data corresponding to each of the plurality of classes.....*

*'a display unit to divide the plurality of contents data of one class.....*

*'a memory to store a second.....*

*'an indication unit configured to select a first property.....*

*'a generation unit configured to join contents data of the first table with record.....[claim 1,16-20];*

US Application No.10/717,561 is directed to *"A database management apparatus which manages a database having a hierarchical classification structure in which a lower classification inherits a property.....*

*'a setting unit configured to set a typical property set.....*

*'a storage which stores the typical property..... [claim 1,11]*

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to modify the steps as indicated in claim 1,21-22 of the instant US application since the omission and addition of the limitations would have not changed the process according to which displaying a hierarchical structure configured to store a database classes having hierarchical structure. Therefore, the ordinary skilled artisan would have been also motivated to modify the claim 1,21-22 of the *"An apparatus for displaying a hierarchical structure, comprising: a memory configured to store a database for a plurality of classes having a hierarchical structure: and a display configured to output at least part of a 'first area of one class and at least part of a second area of at least one child class belonging to the one class, the one class and the at least one child class being defined in the plurality of classes, and the first area including the second area"* with the steps of US Application No. **11/086,229** is directed to *"A hierarchical database, in which a sub-class inherits to a property of a super class, having a class code for each class to identify the class, comprising: a first classification system....a second classification system...the synonymous class has an identification information....[claim 1,18];*

US Application No. **10/900,388** is directed to "An apparatus for processing data, comprising: a database configured to hierarchically store a plurality of classes and plurality of contents data corresponding to each of the plurality of classes.....

*'a display unit to divide the plurality of contents data of one class.....*

'a memory to store a second.....

'an indication unit configured to select a first property.....

'a generation unit configured to join contents data of the first table with  
record.....[claim 1,16-20];

US Application No. **10/717,561** is directed to "A database management apparatus  
which manages a database having a hierarchical classification structure in which a  
lower classification inherits a property.....

'a setting unit configured to set a typical property set.....

'a storage which stores the typical property..... [claim 1,11]

The cited elements would not interfere with the functionality of the steps  
previously claimed and would perform the same function. In re Karlson, 136 USPQ 184  
(CCPA 1963).

In the above analysis, dependent claims 2-20 of the instant application rejected

This is a provisional obviousness-type double patenting rejection because the  
conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***10. Claims 1-22, are rejected under 35 U.S.C. 102(b) as being anticipated by Lowry, US Patent No. 5953724, published on Sept 14,1999.***

11. As to claim 1, Lowry teaches a system which including 'an apparatus for displaying a hierarchical structure [fig 2A, col 4, line 48-54], displaying a hierarchical structure corresponds to Lowry's fig 2A;

a memory configured to store a database [fig 1, element 26], for a plurality of classes having a hierarchical structure[fig 2A, col 4, line 57-67, col 5, line 46-48]; Lowry is directed to database structure, more specifically arranging nodes in a hierarchical structure having parent-child relationship as detailed in fig 2A, hierarchical structure corresponds to Lowry's fig 2A;

a display configured to output at least part of a 'first area of one class and at least part of a second area of at least one child class belonging to the one class, the one class and the at least one child class being defined in the plurality of classes, and the first area including the second area' [col 5, line 66-67, col 6, line 39-43, col 7, line 19-28, co 10, line 15-31], Lowry specifically teaches multiple related hierarchical structure in

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which specific nodes establishes relationship between other nodes as parent-child relationship, further each node regarded as specific parent class and specific child class as detailed in col 6, line 39-43, col 7, line 19-28, , col 10, line 15-31], further it is noted that Lowry specifically suggests each class or category of entity are defined in a hierarchical structure for example organizations, people, locations as detailed in col 10, line 15-22.

12. As to claim 2, Lowry disclosed 'display outputs all of the first area including all of the second area' [fig 2A-2B]..

13. As to claim 3, Lowry disclosed 'display outputs class information related to the one class or the at least one child class' [col 4, line 61-63]..

14. As to claim 4, Lowry disclosed 'display outputs a list of properties included in the one class or the at least one child class' [col 6, table 1, line 38-41], table 1 specifically suggests list of different class properties including property type, functions.

15. As to the claim 5, Lowry disclosed 'display outputs property information related to one property from the list of properties' [table 1-2, col 9, line 28-36].

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16. As to claim 6, Lowry disclosed 'display outputs a mark in correspondence with each class of the first area and the second area, and wherein the mark represents that a corresponding class hierarchically includes a child class' [fig 2A-2B, col 9, line 41-48].

17. As to claim 7, Lowry disclosed 'an operation unit configured to indicate whether an area of the child class is displayed in an area of the corresponding class' [fig 2A-2B].

18. As to claim 8, Lowry disclosed 'a status of the mark of the corresponding class of which the area of the child class is displayed is different from a status of the mark of the corresponding class of which the area of the child class is not displayed' [fig 2A-2B, col 9, line 49-58].

19. As to claim 9, Lowry disclosed 'a status of the mark of the corresponding class of which the child class has an instance is different from a status of the mark of the corresponding class of which the child class does not have an instance' [fig 5A, 2A, col 7, line 48-58].

20. As to claim 10, Lowry disclosed 'display outputs another mark in corresponding with the child class which has the instance' [col 8, line 28-33].



21. As to claim 11, Lowry disclosed 'operation unit selects a class to display direct classes from the plurality of classes, and wherein said display outputs the direct classes to which the class belongs' [col 8, line 38-45].

22. As to claim 12, Lowry disclosed operation unit sets a universal root class commonly including a first hierarchical structure derived from a first root class and a second hierarchical structure derived from a second root class' [fig 2A-2B], Lowry specifically suggests hierarchical structure and hierarchical relationships as detailed in fig 2A-2B..

23. As to claims 13-14, Lowry disclosed 'operation unit sets a retrieval start point to the one class of the first area on said display, and wherein a retrieval object is limited to the child class having the instance' [col 9, line 15-21, fig 2A-2B].

24. As to claim 15, Lowry disclosed 'the child class inherits at least one property of each of a plurality of parent classes in the plurality of classes stored in said memory' [table 1-2, col 9, line 28-36].

25. As to claim 16-17, Lowry disclosed 'a display status of the child class inheriting at least one property of each of the plurality of parent classes is different from a display status of another child class not inheriting at least one property of each of the plurality of parent classes' [col 15, line 42-53].

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26. As to claim 18, Lowry disclosed 'a color of a property in the list of properties of the child class as an inheritance destination class is the same as a color of the parent class having the property as the inheritance source class' [col 15, line 66-67, col 16, line 1-6]..

27. As to claim 19, Lowry disclosed 'operation unit sets a number of hierarchical levels for a plurality of classes at an initialization mode to display the hierarchical structure of the plurality of classes'[fig 2A-2B]..

28. As to claim 20, Lowry disclosed 'operation unit sets an identifier of each class to be expansible displayed in the plurality of classes at the initialization mode' [col 9, line 15-21].

**The prior art made of record**

a. US Patent No. 5953724

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

SC  
*Patent Examiner.*  
June 16, 2006.

  
**SRIRAMA CHANNAVAJJALA**  
PRIMARY EXAMINER